

# Health Advisory:

## Sustained Increase in Syphilis Cases in Missouri

February 15, 2019

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Health Advisory  
February 19, 2019

FROM: RANDALL W. WILLIAMS, MD, FACOG  
DIRECTOR

SUBJECT: Sustained Increase in Syphilis Cases in Missouri

The Missouri Department of Health and Senior Services (DHSS) continues to observe a sustained increase in the number of syphilis cases reported in the state. The number of early syphilis cases reported in Missouri in 2017 (930 cases) increased by 38% over the number of cases in 2016 (676 cases), and has increased 218% since 2012 (292 cases). Provisional data indicate that this upward trend continued in 2018 with the number of reported cases through December 31, 2018, up 40% over the same time period in 2017. The purpose of this DHSS Health Advisory is to alert health care providers of the significant increase in rates of syphilis among multiple populations including gay, bisexual, and other men who have sex with men; people who use drugs; and heterosexual men and women. A significant increase has also been observed in the number of reported congenital syphilis cases.

### Background

Syphilis is a sexually transmitted disease (STD) that can have very serious complications for adults and newborns if left untreated. Initial symptoms of syphilis include a sore and/or rash that goes away after a few weeks without treatment, though serious health issues may emerge later without appropriate treatment. Syphilis can be treated and cured with antibiotics yet many cases go undiagnosed and untreated, leading to increased transmission and future negative health consequences. Congenital syphilis occurs when a mother with untreated syphilis passes the infection on to her baby during pregnancy – causing miscarriages, premature births, stillbirths, or death of newborn babies. Babies born with congenital syphilis can experience serious health complications that may present at delivery or later in life.

Missouri's increase in syphilis cases was initially observed among gay, bisexual, and other men who have sex with men, though other groups, including heterosexual women, have also experienced an increase in cases recently. While the initial increase in cases occurred primarily in the Kansas City and St. Louis metropolitan areas, other areas including smaller metropolitan areas and rural counties throughout Missouri are also experiencing a steep increase in cases, particularly among people who use drugs and their partners. With the increase in cases in women, Missouri has seen a corresponding increase in the number of babies born with, or stillborn due to, syphilis. In 2017, 13 congenital syphilis cases were reported in Missouri, representing the highest number of cases reported since 1998. Missouri has also experienced an increase in ocular syphilis, which can cause blurry vision and/or blindness. Syphilis can cause ocular and neurological issues at any stage of infection.

The increasing rates of STDs in Missouri, including syphilis and congenital syphilis, mirror nationwide trends seen in recent years. Ongoing public health efforts to reverse current trends will require a renewed commitment from, and continued partnership with, healthcare providers.

## Recommendations

- Providers should assess the sexual health of patients and discuss STD risks for the patient and partners of the patient.
- Providers should routinely test for syphilis in individuals who have signs or symptoms suggestive of infection. Individuals exposed to syphilis within the past 90 days should receive testing and preventive treatment.
- Sexually active gay, bisexual, and other men who have sex with men should be tested for syphilis annually or more frequently depending on risk.
- Pregnant women should be tested at the first prenatal visit, in the third trimester (28-32 weeks), and at delivery regardless of perceived risk. Bicillin LA is the only CDC-recommended treatment for pregnant women, including those who are allergic to penicillin. Pregnant women who are allergic to penicillin should be desensitized and treated with Bicillin LA.
- Any woman who has a fetal death after 20 weeks gestation should be tested for syphilis.
- Individuals who are living with HIV who are sexually active should be tested for syphilis annually.
- Patients with diminished visual acuity, blindness, uveitis, panuveitis, optic neuropathy, interstitial keratitis, anterior uveitis, and retinal vasculitis should be tested for syphilis and referred to an ophthalmology specialist. If ocular syphilis is suspected, the patient should be treated according to the Centers for Disease Control and Prevention's (CDC's) 2015 treatment recommendations (see below under Additional Resources) for neurosyphilis and undergo a lumbar puncture with cerebrospinal fluid (CSF) examination.

Questions should be directed to DHSS' Bureau of HIV, STD, and Hepatitis at 573-751-6439, or via email at [STDinfo@health.mo.gov](mailto:STDinfo@health.mo.gov).

## Additional Resources

Complete CDC testing and treatment recommendations:

<https://www.cdc.gov/std/tg2015/default.htm>

CDC Syphilis Pocket Guide:

<https://www.cdc.gov/std/syphilis/Syphilis-Pocket-Guide-FINAL-508.pdf>

CDC STD Treatment Guide:

A mobile app is available for download from the Apple or Android store (search for STD Tx Guide)

DHSS Syphilis Overview:

<https://health.mo.gov/living/healthcondiseases/communicable/stds/syphilis.php>

## Health Advisory:

### DHSS Health Advisory for Legionella

**May 20, 2019**

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**Health Advisory**  
**May 20, 2019**

**FROM: RANDALL W. WILLIAMS, MD, FACOG  
DIRECTOR**

**SUBJECT: DHSS Health Advisory for Legionella**

The Fulton Presbyterian Manor, located at 811 Center Street, Fulton, Missouri is under investigation after two residents tested positive for *Legionella*. Public information released on **May 19, 2019** directs individuals with symptoms of Legionnaire's disease that have visited the facility within 14 days of illness onset to seek medical care. This health alert provides general guidance for healthcare providers that may see patients who fit these criteria.

Most people with Legionnaires' disease will have pneumonia since the *Legionella* bacteria grow and thrive in the lungs. Legionellosis is not spread from person to person. *Legionella* grow best in warm water sources, such as hot tubs or hot water tanks. The infection is primarily acquired through inhalation of mist or vapor containing the bacteria, or by aspiration of contaminated water into the lungs. Environmental risk factors associated with legionellosis outbreaks are travel, residence in a health care facility, and proximity to cooling towers, whirlpool spas, decorative fountains, and grocery produce misters.

Though most individuals exposed to *Legionella* will not get sick, some persons have an elevated risk of acquiring legionellosis. Such individuals include those with the following risk factors:

- Age of 50 years or older
- Diabetes
- Current or former smoker
- Chronic lung disease
- Weakened immune system, including recipients of a transplant or chemotherapy

The most commonly used laboratory test for diagnosis of Legionnaires' disease is the urinary antigen test, which detects a molecule of the *L. pneumophila* serogroup 1 in urine. *L. pneumophila* serogroup 1 is the serogroup that most commonly causes disease. Along with the urinary antigen test, isolation of the bacteria via culture of respiratory secretions, lung tissue, pleural fluid, or a normally sterile site is highly recommended since culture is a preferred diagnostic modality. Sputum should ideally be obtained prior to antibiotic administration, but antibiotic treatment should not be delayed.

The Infectious Disease Society of America (IDSA) guidelines recommend fluoroquinolone or azithromycin, as preferred, and doxycycline as an alternative treatment.

Legionellosis is a reportable disease in Missouri. All known or suspected cases should be reported to the local public health agency, or to DHSS at 573/751-6113 or 800/392-0272 (24/7). Questions should be directed to DHSS' Bureau of Communicable Disease Control and Prevention at 573/751-6113.

## Health Advisory:

### Severe Lung Disease Associated with Vaping

August 20, 2019

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Health Advisory  
August 20, 2019

**FROM: RANDALL W. WILLIAMS, MD, FACOG  
DIRECTOR**

**SUBJECT: Severe Lung Disease Associated with Vaping**

There have been 94 possible cases of severe lung illness associated with vaping in 14 states (30 cases in Wisconsin) from June 28, 2019, to August 15, 2019. As of August 17, 2019, the Centers for Disease Control and Prevention (CDC) is assisting several states (Wisconsin, Illinois, California, Indiana, and Minnesota) in investigation of clusters of pulmonary illnesses linked to e-cigarette product use, or “vaping,” primarily among adolescents and young adults. While some cases in each of the states are similar and appear to be linked to e-cigarette product use, more information is needed to determine what is causing the illnesses. Even though no severe lung disease associated with vaping has been reported in Missouri to date, the Missouri Poison Center has received over 600 calls with various complaints related to e-cigarettes over the last 10 years, and has managed over 30 cases with breathing difficulties associated with vaping over the last 5 years.

Patients presented with cough, shortness of breath, chest pain, and fatigue, which became worse over days or weeks before hospital admission. All patients reported “vaping” (i.e., use of e-cigarette devices to aerosolize substances for inhalation) in the weeks and months prior to hospital admission. Many have acknowledged recent use of tetrahydrocannabinol (THC)-containing products; however, no specific product has been identified by all cases, nor has any product been conclusively linked to this clinical syndrome. The severity of the disease has varied among patients, with some needing mechanical ventilation to assist with breathing, and subsequently those patients improved with corticosteroid treatment. All confirmed cases required hospitalization. Some patients also had fever, anorexia, pleuritic chest pain, nausea, and diarrhea. Evaluation for infectious etiologies was negative among nearly all patients. Chest radiographs of those patients showed bilateral opacities, mostly in the lower lobes. Chest CT imaging was consistent with diffuse ground-glass opacities. While patients have improved with treatment, long-term health effects are unknown at this time.

As of today, e-cigarettes available in the U.S. have not been systemically reviewed by the Food and Drug Administration (FDA) to determine their impact on lung health. Nevertheless, it is known that e-cigarettes both contain and emit a number of potentially toxic substances. In January 2018, the National Academies of Science, Engineering and Medicine released a consensus study report stating that inhalation of harmful chemicals through “vaping” can cause irreversible lung damage and lung disease. The Academies' report also states there is moderate evidence that youth who use e-cigarettes are at increased risk for cough and wheezing and an increase in asthma exacerbations.

The Missouri Department of Health and Senior Services (DHSS) recommends:

1. Any person, particularly young people, experiencing unexplained chest pain or difficulty breathing after vaping in the days or weeks prior to their symptom onset should seek medical attention.
2. Health care providers caring for patients with respiratory or pulmonary illness, especially of unclear etiology, should ask about the use of e-cigarette products for “vaping” and inquire about the types of drugs (legal or illicit) used and methods of drug use (e.g., smoking, “vaping”).
3. Clinicians should report cases of significant respiratory illness of unclear etiology in patients with a history of vaping to the local public health agency (LPHA), or to DHSS.
4. Evaluation for common infectious etiologies when also suspected should be pursued, and less common infections, and rheumatologic or neoplastic processes, considered as clinically indicated.
5. If an e-cigarette product is suspected as a possible etiology of a patient’s illness, it is important to inquire, and when possible document, what type of product as well as if the patient is:
  - using commercially available devices and/or liquids (i.e. bottles, cartridges, or pods);
  - sharing e-cigarette products (devices, liquids, refill pods, and/or cartridges) with other people;
  - re-using old cartridges or pods (with homemade or commercially bought products); or
  - heating the drug to concentrate it and then using a specific type of device to inhale the product (i.e., “dabbing”).

This information is preliminary and subject to change as CDC provides further guidance.

Questions should be directed to DHSS’ Tobacco Prevention and Control Program at 573-522-2824.

## References

Public Health Consequences of **E-Cigarettes**. January 23, 2018.

<https://www.nap.edu/read/24952/chapter/1>